

Third Residential Working Group Meeting

Meeting Minutes

James River and Its Tributaries

Water Quality Improvement Plan for Bacteria Impairments

6:30 PM, January 24, 2011

Westover Hills Library

1408 Westover Hills Blvd., Richmond, 23225

Facilitator: Margaret Smigo, DEQ

Recorder: Kelley West, DEQ

Attendees

Grace LeRose, City of Richmond
Lorne Field, Chesterfield Co
Lance Gregory, VDH
Debbie Byrd, Goochland Co
Keith Burgess, Monacan SWCD
David Bernard, Sierra Club and Coastal Currents
Bill Shanabruch, Reedy Creek Coalition
Chris French, Alliance for the Chesapeake Bay
Ed Cronin, Greeley and Hansen
Scott Flanigan, Chesterfield Co
John Newton, Henrico Co
Scott Burger, City of Richmond, Sierra Club
Kelley West, DEQ
Margaret Smigo, DEQ
Megan Laird-Maggard, MapTech Inc – via teleconference

Accounting for residential BMP's installed:

In regard to Chesterfield County they have initiated a pilot project on looking for sewer connections, we will be discussing this on Wednesday at the government workgroup. There was a brief discussion of the "sewer-connection BMP" and the need for localities Chesterfield (who has done pilot study), Henrico, Powhatan, and Goochland to evaluate areas within their jurisdiction where septic failures have occurred to determine feasibility and potential of sewer connections in those areas. Goal would be to provide DEQ with an estimated number of homes to be connected and approximate cost per home to connect. Stage I of IP would include those homes which would be biggest bang for the buck (close to impaired waters and close to sewer mains (cheapest to connect)), while Stage II of IP would include those homes that are further from sewer mains and more expensive to connect (for example). Lance mentioned that

for Powhatan and Richmond, he only had septic-repairs “locality-wide”, in which case Megan would have to area-weight them. Ed said that if he is provided with addresses he would geocode them so the analysis could be done. It was not clear if Ed was willing to do this for all localities that would need addresses geocoded (may only be willing to do this for City of Richmond).

Residential Waste treatment BMP’s needed:

There was a question if we could add Tuckahoe creek to the IP, yes we are able to add it. The Tuckahoe Creek TMDL was modeled differently and therefore we cannot just lump in the results of that study with this one. We will take the 3 subwatershed segments of 26, 27, and 28 out of the James River Riverine segment and re-assign them as Tuckahoe Creek. You can see that in table 1. Based on information from VDH on septic repairs, the Chesterfield numbers were updated in Table 1. Megan said septic pump outs are a good BMP’s because during a pumpout it is possible for the technician to tell if there is a septic failure or issue. Group discussed that because they are not in the mandatory pump-out area, Powhatan and Goochland should be included – the portions allotted to other localities should be removed as BMPs because they are already required to do it. Ed suggested we should just keep it as a general recommendation instead of “mandatory” since it is not technically reducing bacteria. Chris said in counties where you do not have an enforcement program (Goochland and Powhatan) it would be good to have a pump out program initiated there to increase the chance of people actually doing this preventative maintenance for their systems. Megan said we could include for only Goochland and Powhatan - it would be up to the group and the steering committee. John said in Henrico County they are making people pump out that are in riparian protection areas.

Questions for the group:

1. Do any municipalities have information or estimates that would help determine which areas would be feasible for sewer hookup?

Grace asked what do you mean by “feasible”? Margaret responded that this question was to find out which Counties intended to do the “sewer BMP analysis”, such as the pilot which Chesterfield initiated. Debbie said Goochland is interested and Grace said Richmond is interested as well. John said Henrico would not be doing the analysis. Chesterfield hopes to continue their pilot study for the area within the watershed area to provide info on the “sewer connection BMP”.

Scott Flanigan said there will be some help or guidance he can send out this week for the counties that are interested. Information related to the Chesterfield pilot will also be posted on the DEQ website for groups and steering committee to review.

2. Do any municipalities have estimates for the number of composting toilets or other “Alternative” Residential Waste Treatment systems already installed in each watershed? Lance said there is a permitting process for composting toilets- there are 2 in powhatan, there is a permitting process for that- usually if someone has a outhouse and they want to convert it from outdoor to indoor they install a composting toilet. There is one proposed in the James River State Park and 2 proposed for Powhatan

State Park. However, composting toilets are something people could install without permits or letting anyone know.

3. Is City of Richmond and VDH looking into difference in homes with septic systems in VDH data (~140) and homes with only water connections in Richmond data (~1300). Grace said answer is yes.

Residential NPS BMP's Needed

Table 2 shows the number of pet waste composters needed to meet TMDL scenarios for watershed. The table has been updated to include Tuckahoe creek. All pet composters would be included in Stage II of project. The total number of composters has been reduced by utilizing more stormwater BMPs.

Questions for the group:

1. What areas already have pet waste stations? Grace said she can provide Richmond's pet stations (where they are and how many they are). As a follow-up - Richmond provided this information. Lorne said Chesterfield county parks have a few and can find out where they are.

Margaret mentioned that she has obtained a park shapefile from the RRPDC – if localities have additional green-space layers we would like to use them (discussion somewhat addressed question 3). These layers can be used to help us determine where pet stations are so we can determine where they are needed. Scott said many new apartment complexes are putting them in; do you want us to let you know where those are located? Margaret welcomed that information. Scott said Chesterfield could place these new developments in shapefiles and color code it if it's a "park" or a homeowners assoc (Margaret said that'd be great). John said Henrico would look into it but didn't think they have any specific programs and didn't think they had any additional information to share. Keith asked what if you don't have any near streams? Would it still be a benefit to pick up after your pets even if you do not live near a stream? Megan responded that there is always a benefit to picking up after your pet, that's why we have pet composters in the plan so people can pick up even in their own yard. The topic of wildlife was brought up – what about nuisance populations? Megan responded that the goal of the TMDL is not to kill off wildlife, if there are nuisance populations there are options. These mitigation efforts aren't necessarily something that a municipality must do, it's just an option, and would only be included if it is feasible. Margaret said that if there is interest, a wildlife management plan could be included, however DGIF must be involved in that process. Ed said that the City of Alexandria used something like that and DGIF approved it. Chris mentioned the city of Richmond has expanded their bow season for deer to 6 months (which is very unusual). Megan pointed out that while geese may be an issue in some areas of the watershed, dogs overall have a higher load of bacteria than geese. Scott also mentioned that we may have populations that are protected (heron rookeries and extensive beaver populations). He said in his opinion, education for pet waste pick up would be more effective than trying to lower wildlife populations. Ed said that we would need to know what the population's amounts are and the amount of bacteria they contribute. Bill suggested that "wildlife bacteria mitigation" is not Stage I topic, rather, it is something that could be Stage II. Megan and Margaret agreed.

2. What municipalities already have a pet pick-up ordinance? Henrico said they don't have one, Chesterfield doesn't think they have one but will check, and Richmond said yes and will provide the code. As a follow-up, the City did provide the ordinance link. It is assumed that Powhatan and Goochland do not have a pet-waste pick-up ordinance.
3. What other parks/highway rest stops/community dog areas are in each watershed? How many stations would each need? Chris mentioned that the Alliance for Chesapeake Bay is doing audits in Reedy Creek the previous week and everyone was walking dogs – there is a need for waste stations. Bill said this is true, especially with grassy areas around Reedy Creek and around impoundments that drain to creeks. Scott Flanigan asked if areas with large kennels, such as doggy daycares or kennels could qualify? Margaret said definitely – these are areas that if a station was not appropriate, perhaps the owners could be educated on waste disposal. Lance said if you have a dog kennel on septic you have to increase the strength and the building inspectors section of a county would know if any kennels have a septic.

Chris said he thought the SPCA disposed of pet waste in dumpster (Margaret would check). He said he Vet on Hermitage Road also disposed of waste in dumpster. Keith said in Powhatan, it's mandatory that all the kennels they know of be tied into the septic systems. Bill said some of the new developments are including dog stations, which is something that can be pitched to older apartment complexes as a retrofit.

4. What volunteer organization/municipalities/agencies could install, maintain, empty trash cans? Scott Burger said they installed 5 stations in his neighborhood but he thinks that the parks and rec service in Richmond actually maintain it now. It's not always done regularly but he knows that someone other than residents maintain them. Scott followed up by providing the links to the stations his community installed (included price info).

Grace said she thinks it's reasonable for the municipalities to be in charge of maintenance of things on their own parks.

Table 3: Estimated Costs of Residential BMPs

Included below the table are the links to where information within the table was derived (including cost). Keith noted that costs in the table don't include labor. Scott B. thought the price for 320 bags seemed high and that a \$20 bag of quickrete and an hour of your time are all that it takes to install a pet station. Grace said the mailings and education are not a one time thing, that will cost more money, a pet education program is posters, PSA, a mailing a month a mailing a quarter, for it to be realistic or effective it needs to be defined distinctly. Chris mentioned that this is where social media comes in to play, its inefficient to look at one area – need to address the problem watershed-wide. The state is about to spend \$ to advertise the use of native plants (for example). Also – Chris said DCR needs to be included and all the localities and jurisdictions should take part in the media campaign. If done on a broad spectrum, you can hit online media it will spread to the entire region not just one small area, it's a much more effective use of funds as well. Keith said his concern is that someone will look at it will say "we need 10 baggy stations and the amount of stations" and there will be no appropriate places to put

them. The group discussed that if money is awarded as a lump sum, it could be appropriated to where the need is most. Grace said people have to be hit 8 times to get the point across so it will be necessary to do more than just one brochure – so we must factor in ample education BMPs. Margaret said that as a group, we can check with DCR about “vet education” programs and what DCR is already doing with vet clinics (and similar facilities).

Potential residential and urban Stormwater BMP's

Table 4 showed the SW BMPs that filter/store/prevent SW runoff from residential and/or commercial land uses. Margaret asked the group to consider which BMPs are most likely to be implemented in the project and which BMPs the group would like to be included in the IP. Megan also asked the group to discuss which are difficult, costly, etc. and therefore would be unlikely to be implemented.

Difficulty of installation – Group discussed that pervious pavers can be difficult – it depends on the scope of the project. If you are talking about the use of pavers instead of concrete for a driveway – that’s not a true “pervious paver” although they are often recommended over impervious surface. The concrete blocks with holes for example (used on a path or driveway or parking lot) are not difficult to install. The pavers used on road surfaces require engineering and to get “credit” on your SW bill in Richmond, the design must be engineer approved. Grace asked if these BMPs would be tied to blue book or clearing house. Chris said when we look at the various standards the blue book is DCR’s “old” SW book and the clearing house is the most up to date science (work in progress though). Debbie mentioned that grass swales are easy however Chris said grass swales require engineering also. Debbie said that only the size is an issue to get the credit. Chris mentioned that he had seen many grass swales “butchered”, in which case perhaps an engineer wasn’t consulted.

Megan asked which of these would the group like to see in the project?

She said that riparian forest buffer, gutter disconnect, rainbarrel, raingarden, pervious pavers, infiltration trench, are all “quantified” therefore they can be included in the modeling. All others we do not have efficiencies for, so those could be promoted in the text of the document. Grace asked efficiencies were available for all BMPs noted as “quantify”, to which Megan said yes. There was confusion in regard to why we don’t have efficiencies for “French drain, level spreader, and grass swales”. Megan replied that she cannot model these – only can model if there is a direct land use change. Chris mentioned his conversation the previous week with Megan and Margaret, in the conversation he said they told him about the plan for modeling SW and that they do not intend to exclude practices. When there is efficiency data available that will be added to the load model calculator, however, when it comes to things that reduce volume, Megan will run the model with the reduced hydrology and the result in change of amount of flow. There are two ways they are quantifying the bacteria, one way is the volume. The SW BMP information has never focused on bacteria, we all know reducing volume, however, will help reduce bacteria.